

REMARKS

Applicants respectfully request further examination and reconsideration in view of the arguments set forth fully below. In the Final Office Action mailed August 23, 2007, claims 1-4 and 6-27 have been rejected. In response, the Applicants have submitted the following remarks. Accordingly claims 1-4 and 6-27 are still pending. Favorable reconsideration is respectfully requested in view of the remarks below.

Rejections Under 35 U.S.C. §103

Claims 1-4, 6, 8 and 10-27 have been rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,277,181 to Selker (hereinafter Selker). The Applicants respectfully disagree with this rejection.

The Selker reference teaches a clinical information reporting system, wherein the reporting system includes an electrocardiogram that generates ECG related data for a group of patients and a database for incorporating this data for a group of patients into the database. A process of care report is generated from the database as a function of a clinically meaningful class of the group of patients, as defined at least in part in terms of the ECG related data supplied by the electrocardiogram and stored within the database (Selker, abstract). Upon careful review of the Selker reference, the Applicants respectfully submit that the Selker reference teaches simply a system that collects an amount of data for a group of patients for any one physiological parameter, and keeps track of such information and displays the information as instructed by a user of the system. This is supported by the figures associated with the Selker reference and the cited columns of the Selker reference in the Office Action.

While the Selker invention utilizes a predictive instrument 10, this predictive instrument utilizes a logistic regression equation to compute the probability of acute cardiac ischemia, wherein the Selker reference uses the inputs from the electrocardiograph for, waveform analyzer 8 to automatically compute the relevant probability using this equation (Selker, column 4, lines 10-56). However, it is not taught in Selker that the system and method compares the parameters of the biomedical signal with all corresponding parameter

values stored in the database and calculates a percentage representing the likelihood wherein all the corresponding parameter values in the database are collected from a plurality of patients. In fact, the Selker reference collects data from an individual patient, processes that data through the predictive instrument, and stores this information in the database, where it may be called upon later for use in an aforementioned report (Selker, column 4, lines 67 through column 5, line 16). Nowhere in the Selker reference is it taught that the system is configured to compare a signal from a patient to a database of patient biomedical signals, and calculate based on the comparison, the percentage of likelihood that a particular condition exists.

In contrast to the teachings of Selker, the method and system of the present invention determines the likelihood of the presence of a condition of a patient's heart by comparing the at least one parameter value of a biomedical signal of the patient to all corresponding parameter values stored in a database **and calculates a percentage representing the likelihood of condition of the patient's heart.** The database of the present invention stores parameter values of ECGs (biomedical signals) of a large number of patients, and **compares those parameter values to the subject patient's parameter value to calculate a probability of the presence of a condition of that patient's heart (present invention, paragraphs 21-22).** The graphical user interface of the present invention includes a plurality of field boxes, wherein values of the patient are entered and are defined by the leads of the measured ECG parameters on a vertical axis and the types of parameter values on the horizontal access. Once the patient's parameter values are entered in the appropriate field boxes, a "ready" button is utilized to calculate the likelihood of the presence of a condition of the patient's heart, which are then displayed on the graphical user interface. Selker does not teach nor make obvious the comparing step or the comparing or calculation of the likelihood of a presence of a condition of a patient's heart, nor the graphical user interface.

The independent claim 1 is directed to a method for determining the presence of a condition of a patient's heart, the method comprising the steps of: reading at least one parameter value of a bio-medical signal of a patient, and determining the likelihood of the

presence of a condition of a patient's heart based on the at least one parameter value, the step of determining including the step of comparing the at least one parameter value of the bio-medical signal with all corresponding parameter values stored in a database and calculating a percentage representing the likelihood, wherein all corresponding parameter values in the database are collected from a plurality of patients, and displaying the likelihood on a graphical user interface (GUI), wherein the at least one parameter of the patient is entered in a field box defined by a lead of measured parameter values and a parameter value. As described above, Selker does not teach or make obvious the comparing step or calculating a likelihood of a condition of a patient's heart nor the graphical user interface as described and claimed in the present invention.

Claims 2-4 and 6 are dependent upon the independent claim 1. As discussed above, the independent claim 1 is allowable over the teachings of Selker. Accordingly, claims 2-4 and 6-7 are also allowable as being dependent upon an allowable base claim.

The remainder of the independent claims, including independent claims 8, 12, 17 and 23 have been amended to include the limitations as discussed above with respect to claim 1. For at least these reasons, the Applicants respectfully submit that the independent claims 8, 12, 17 and 23 are all allowable as they are not anticipated by, nor made obvious by the Selker reference.

Claims 9-11 are dependent upon the independent claim 8. As discussed above, the independent claim 8 is allowable over the teachings of Selker. Accordingly, claims 9-11 are also allowable as being dependent upon an allowable base claim.

Claims 13-16 are dependent upon the independent claim 12. As discussed above, the independent claim 12 is allowable over the teachings of Selker. Accordingly, claims 13-16 are also allowable as being dependent upon an allowable base claim.


Claims 18-22 are dependent upon the independent claim 17. As discussed above, the independent claim 17 is allowable over the teachings of Selker. Accordingly, claims 18-22 are also allowable as being dependent upon an allowable base claim.

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Claims 24-27 are dependent the independent claim 23. As discussed above, the independent claim 23 is allowable over the teachings of Selker. Accordingly, claims 24-27 are also allowable as being dependent upon an allowable base claim.

For these reasons, Applicants respectfully submit that all of the claims are now in a condition for allowance, and allowance at an early date would be appreciated. Should the Examiner have any questions or comments, they are encouraged to call the undersigned at 414-271-7590 to discuss the same so that any outstanding issues can be expeditiously resolved.

Respectfully submitted,
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